U.S. Department of Education
Federal Student Aid (FSA)
Modernization Partner Program

Debt Management and Collections System (DMCS) Reengineering

Task Order #91

Deliverable #91.1.3

Business Case

October 3, 2002

Version 3.0

Project Name: **Debt Management and Collections System (DMCS) Reengineering**

Channel: **Students Channel**

Project Sponsor: **Jennifer Douglas**

Project Lead: **Sybil Phillips/Gary Hopkins/Brian Sullivan**

Table of Contents

ATTACHMENT C – PCA COMMISSIONS REDUCTION **21**

Executive Summary

The objective of this Business Case is to confirm the value proposition for the continued reengineering of Collections, a business unit within FSA's Student Credit Management. While several initiatives have been implemented and are generating results, additional opportunities have the potential to provide direct benefits to FSA, and also deliver quantifiable benefits to the Federal government.

This paper provides an overview of all the implemented initiatives that have realized quantifiable benefits and the pending initiatives with forecasted benefits that could be achieved from further reengineering of business processes, upgrading the technology, and workforce transformation. In addition, this paper confirms the effort required for the next stage of the reengineering, establishes the timeline, and verifies that the total savings to FSA greatly exceeds the costs over a period of time.

Benefits Realized

- *PCA Contract Change*
- *Raytheon Contract Re-negotiation*
- *Quick Win Implementations*

Future Initiatives

- *DMCS Reengineering – Business process changes and technology replacement*
- *Workforce Transformation*

Cost Benefit Summary – FY02 through FY08

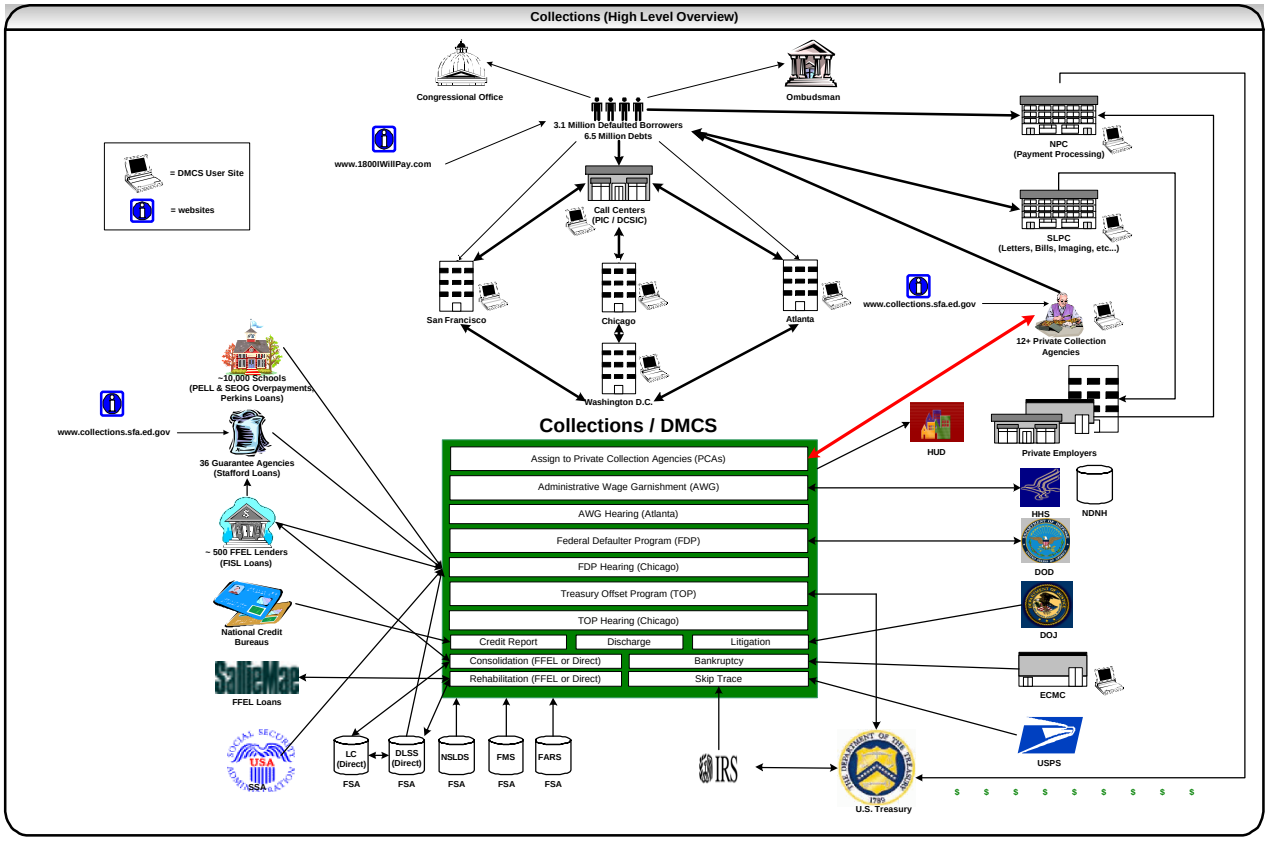
- *Total FSA gross Operational Savings is projected to be $102 million*
- *Total Treasury Savings on PCA commissions is projected to be $72.4 million*
- *Increased recovery to Treasury driven by new technology is projected to be $89 to $357 million*
- *Total Costs of implementing the future initiatives range from $33 million to $38 million*
- *Return on Investment for FSA is projected to be 82% to 110% (calculated on future savings)*

1.0 Collections Background

Collections is a major business unit within FSA's Student Credit Management. The Collections' mission is to provide quality customer service and sound credit management to maximize net revenue from defaulted student loans. Collections' primary customers are United States taxpayers and defaulted student loan borrowers.

The defaulted loan portfolio will reach nearly $14 billion in FY02, consisting of 4.5 million defaulted borrowers. Collections utilizes a diverse range of collection techniques: federal collection tools such as the Treasury Offset Program, Administrative Wage Garnishment, and outsourcing to 12 private collection agencies (PCAs).

The picture below illustrates the current Collections business and the various entities it interacts with.



2.0 Business Challenges

The core business problem that Collections faces is the intense pressure to maximize debt recovery while decreasing operational expenses and collection costs. Managing a growing portfolio with an antiquated computer system presents additional challenges to Collections management.

Competing objectives

While the dollars collected are transferred directly to the U.S. Treasury, the cost of collections, with the exception of PCA commissions, is borne entirely by FSA. This forces FSA to balance initiatives that would increase recoveries but incur higher operational expenditures with those initiatives that reduce the cost per dollar collected.

Growing portfolio

The overall defaulted loan portfolio is growing rapidly due in part to the maturing of the Direct Loan Program. In FY01, the Direct Loan program transferred $1.4 billion in defaulted loans to Collections. Despite an increase in recovery dollars each year, the new debts have been greater causing the portfolio to expand. The defaulted portfolio is projected to reach nearly $14 billion at the end of FY02, up from $12.7 billion in FY01.

In addition to the maturing of the Direct Loan program, the recent economic downturn is expected to have a negative impact on the student loan default rate. The increasing cost of education is causing post-graduation indebtedness to reach significant proportions and is likely to result in more defaulted loans. Effective portfolio management will become increasingly important as the defaulted loan portfolio grows.

Antiquated System

The current DMCS system will not be able to effectively manage the growing portfolio or support the increasing need to manage the performance-based PCA contract. Furthermore, the complexity and rigidity of the system restricts the development of new portfolio management strategies and industry practices.

A new technical solution in conjunction with business process reengineering will improve Collections' performance and productivity through automated and efficient processes. The need to reengineer the business and update the technology has become a high priority at FSA.

3.0 Solution Description

Business process reengineering, technology replacement, and workforce transformation are the core solutions to the business challenges in Collections. Implementation of these solutions is one of the major steps to achieving FSA's strategic vision of Common Services for Borrowers. Refer to the Solution Description and Workforce Transformation document for further details.

3.1 Business Process Reengineering

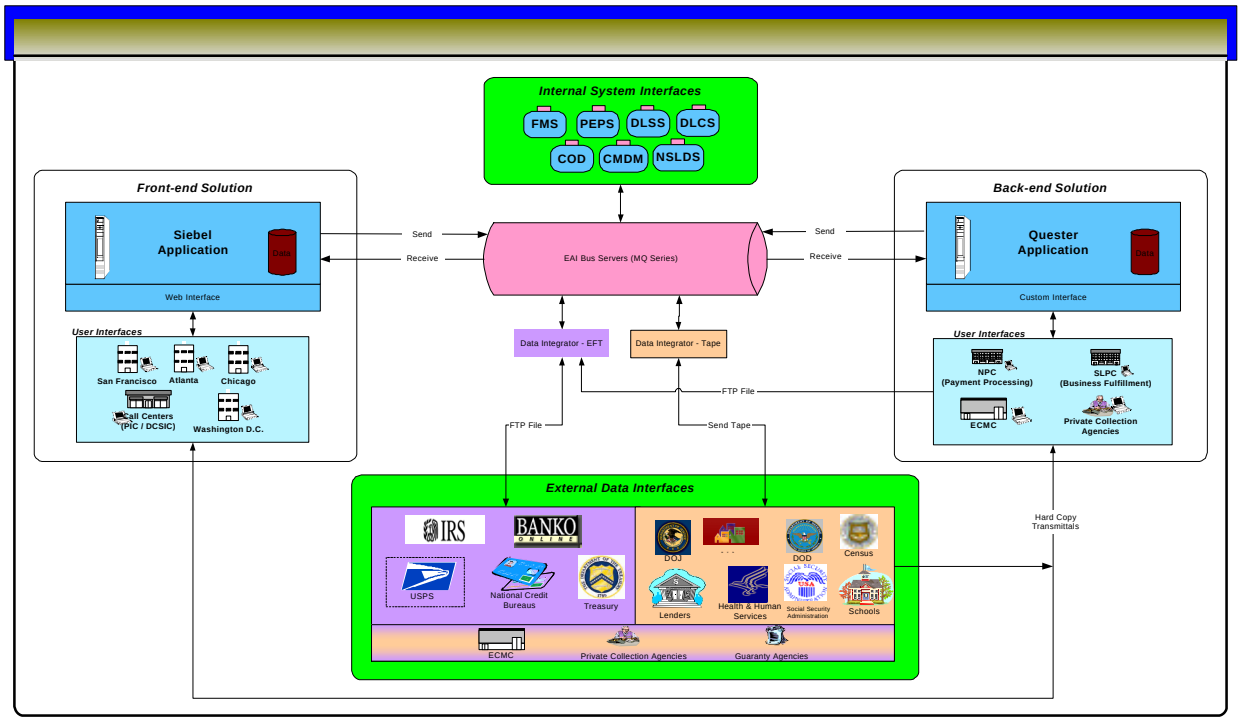
Business Process Reengineering (BPR) involves assessing the most efficient way to perform the Collections activities – through simplifying or automating the necessary steps and eliminating the redundant or duplicated steps. The BPR activity will focus on aligning processes more closely with the new technology and with industry practices. This effort will impact virtually every business area in Collections. Resources will be trained to operate in the new business model.

3.2 Workforce Transformation

Workforce Transformation addresses the "people" side of managing the Collections change effort. It focuses on aligning the organization and individual roles with the overall vision. In addition, it provides the right organizational support to ensure an effective transition and maximize benefits.

3.3 Technology Solution

The new technology will enable the automation of business processes and the transformation of the workforce. The diagram below represents the conceptual design for the reengineered system environment. The core elements of the solution include Raytheon's Quester system, Enterprise Application Integration (EAI), and Siebel's Customer Relationship Management (CRM) application.



4.0 Savings Initiatives

Collections embarked on several initiatives that have already generated significant operational savings for FSA. The savings have been achieved primarily through reduced postage costs, renegotiated legacy system contract costs, and implementation of quick win process changes.

Implementation of the further reengineering described in the section 3.0 above has the potential to provide not only direct benefits to FSA, but will also deliver quantifiable benefits to the Federal government. The operational savings for FSA will come primarily from reduced systems maintenance and hosting costs and from organizational efficiency.

4.1 Initiatives To Date

The following list describes the initiatives that have been implemented in FY02 and are generating savings for FSA:

- Postage savings of $15.5 million will be realized from FY02 through FY08.
  FSA revised the PCA contract terms in FY01 by shifting responsibility for producing and mailing borrower letters to the PCAs. The change brings FSA's contracts into line with industry practices. Immediate postage savings resulted from the change.

- Legacy system contract savings of $16.3 million will be realized from FY02 through FY08.
  FSA negotiated a short sole-source extension in FY01 with Raytheon in order to allow for time to reengineer the system. The change resulted in lower costs for systems maintenance and fewer key personnel.

- Quick win process savings of $597,000 will be realized from FY02 through FY08.
  FSA and the Modernization Partner jointly identified and implemented 6 quick-win opportunities. This resulted in additional postage savings and reduced PCA oversight expenditures.

4.2 Future Savings Opportunities

The following potential savings opportunities were identified for improving the Collections processes and reducing the outsourced operations costs through implementation of the solution described in section 3 above.

- **Improving Collections processes**
  The continued reengineering effort will focus on the major business areas in Collections. The following list includes the opportunities identified to date:
  - Reduce number of letters and reports
  - Streamline collection process in AWG and TOP
  - Reengineer the Direct Debit Program
  - Automate the workflow in Discharges and Hearings
  - Simplify the operational procedures at SLPC and NPC
  - Automate loan rehabilitation, consolidation and student refund
  - Reengineer PCA assignment and Portfolio Management

- **Reducing Contractual Operations Costs**
  The new technology will reduce the future systems operations and maintenance costs:

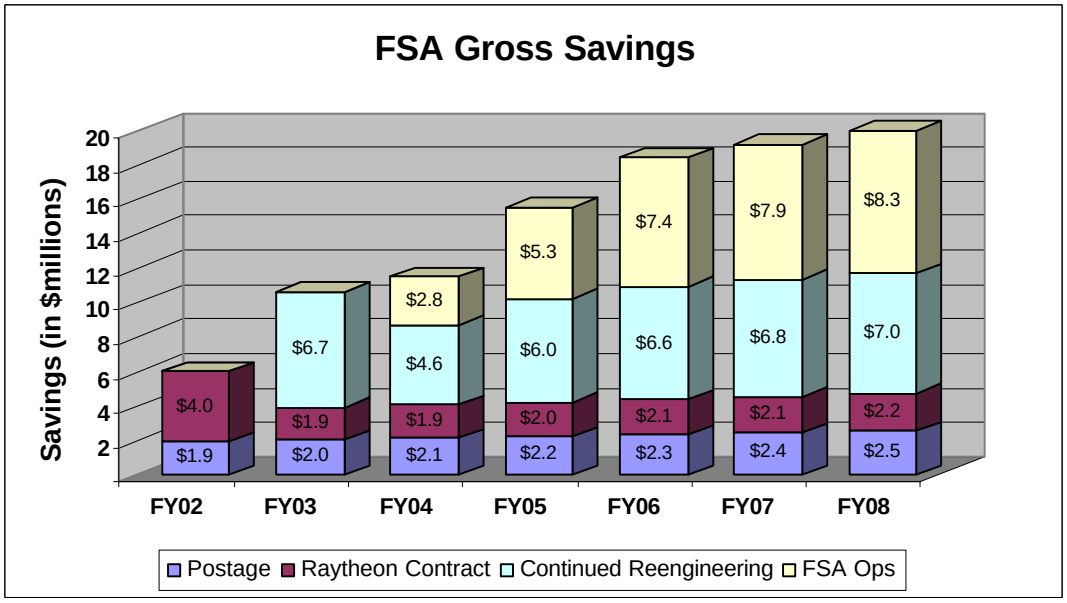
- Client/Server technical architecture and reuse of FSA enterprise technology will reduce the system hosting costs by a total of $4.0 million from FY04 through FY08.
- The Quester system will require less support and thus reduce key personnel (schedule E) costs. The total savings will be $20.5 million from FY02 through FY08.
- Business fulfillment reengineering at SLPC and NPC will lower volume-based deliverable costs by $10.9 million from FY02 through FY08. See Attachment B for details of the future costs and savings.

- **Reducing FSA Operational Costs**
  Potential savings in FSA operations costs may be recognized through workforce transformation efforts. The initiative will focus on aligning the organizational and individual roles with the FSA and Collections visions. Through work efficiencies and process changes, FSA may realize between $2.8 million and $31.7 million from FY04 through FY08. Detailed information on the savings is included in the Workforce Transformation document.

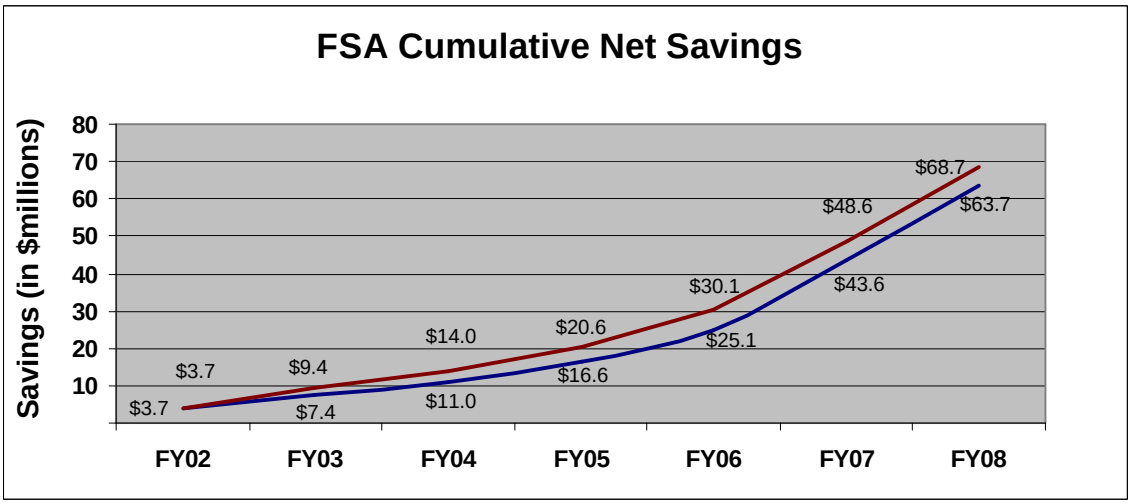
5.0 Cost/Benefit Analysis

As described in section 4 above, there are many initiatives that are already generating savings for FSA. The continued effort to reengineer Collections will generate further savings. The total gross savings are projected to be $102 million from FY02 through FY08.

Baseline Collections costs would have totaled $344 million from FY02 through FY08 if these initiatives had not been implemented and if FSA does not continue the reengineering activities.



To achieve the gross savings from the continued reengineering of business processes, upgrading of the technology and workforce transformation, a level of investment will be required. Based on the scope of work described in the Solution Description document, the estimated costs are from $33 to $38 million. This will result in total net cumulative savings to FSA of between $63.7 and $68.7 million from FY02 to FY08. The projected Return on Investment (ROI) is 82% and 110% calculated using the future savings opportunities (Continued Reengineering plus FSA Operations).



** After estimated investment costs of $33 - $38 million.*

5.1 Baseline

In order to accurately calculate the savings for all of the initiatives within Collections, a baseline year and amount were established from which to measure savings. This amount, which has been agreed upon by FSA, reflects the costs FSA would have incurred had nothing changed (i.e., no PCA contract changes resulting in reduced FSA postage costs, no renegotiation of the Raytheon contract, the DMCS system is not replaced with new technology, and core business processes are not reengineered). Attachment A provides the details behind the Collections Baseline costs.

The baseline amounts are the total amount invoiced or expended for the following cost drivers:

1. Operations and Maintenance represents the business activities to manage the default process and are billed to FSA on Raytheon's schedules A, B, and E (volume deliverable, ad hoc deliverables and key personnel).
2. Development Task Orders represent the cost to enhance the DMCS application and are billed on Raytheon's schedule C.
3. Postage represents the costs incurred to mail letters, bills, and packages to defaulted borrowers.
4. System Hosting represents the cost to host the application. In the current environment, these are the VDC costs allocated to DMCS as part of the FFEL system.
5. Other FSA internal operating costs.

The total baseline costs in FY01 for the cost drivers listed above were $43.9 million. Table 1 details the baseline costs for FY01:

Table 1 - FY01 Baseline Costs by Cost Driver

(in $millions)	
Operations & Maintenance	$16.4
Development Task Orders	$3.9
Postage	$4.6
Hosting	$4.8
FSA Operations	$14.2
Total	**$43.9**

Baseline Escalation

In order to calculate the baseline costs for future periods (i.e., what FSA would have spent if nothing had changed), an escalation factor was applied to the baseline year for each of the cost drivers. The escalation factor was made up of both inflation and growth.

- Inflation - The baseline year costs will increase over time as a factor of inflation for each of the cost drivers. The inflation factor used was the average of the 2-year, 5-year, 10-year, 15-year and 20-year averages of the Consumer Price Index (CPI). This rate was 3.0% using data from 1982 through 2001. This rate is used to inflate Operations and Maintenance and Development Task Orders. The Postage inflation rate was set at 4.5% reflecting the average cost increase in postage rates from 1978 through July 2002. The inflation factor for FSA Operations was set at 4.62% based on assumptions described in the Workforce Transformation document.

- Growth – A growth rate is applied to each of the cost drivers based on historical precedents as follows:

- Projected Operations and Maintenance and Development Task Orders future costs include a 0% growth rate applied to future years. These cost drivers are a factor of the number of active borrowers in the defaulted portfolio. While the dollar value of the defaulted portfolio has been increasing over time ($9.2 billion in FY96 to around $14 billion in FY02), the number of active borrowers in default has remained relatively flat.
- Postage growth rate is similarly driven by the number of active borrowers in the defaulted portfolio and therefore also has a 0% growth factor.
- Hosting costs were based on actual estimates of future hosting costs from the Virtual Data Center. Consequently the hosting growth is negative in FY02 and FY03, then flat through FY08. Any unit cost reduction savings in FY02 and FY03 are accounted for as part of the initiatives managing VDC costs.
- FSA Operational costs are not expected to grow outside of inflation; therefore the growth factor has been set at 0%.

Table 2 details the projected baseline costs for FY02 through FY08 using the baseline and escalation process described above:

Table 2 – Projected Baseline Costs

(in $millions)	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY02-FY08
Operations & Maintenance	$16.4	$16.9	$17.4	$17.9	$18.5	$19.0	$19.6	$20.2	$129.5
Development Task Orders	$3.9	$4.0	$4.1	$4.2	$4.3	$4.5	$4.6	$4.8	$30.5
Postage	$4.6	$4.8	$5.0	$5.3	$5.5	$5.7	$6.0	$6.3	$38.6
Hosting	$4.8	$4.4	$3.4	$3.5	$3.6	$3.7	$3.8	$3.9	$26.3
FSA Operations	$14.2	$14.9	$15.5	$16.3	$17.0	$17.8	$18.6	$19.5	$119.5
Total Baseline Costs	**$43.9**	**$44.9**	**$45.5**	**$47.2**	**$48.9**	**$50.7**	**$52.6**	**$54.6**	**$344.4**

See Appendix A for detailed Baseline information

5.2 Future Operating Costs and Gross Savings

Future operating costs are derived by calculating the operational cost reductions to each of the cost drivers through implementation of all the initiatives described in section 4.2 above. Future operating costs are then escalated using the assumptions described for each cost driver in the baseline section 5.1 above.

Table 3 below details the future operations costs by cost driver:

Table 3 – Future Operations Costs

(in $millions)	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY02-FY08
Operations & Maintenance	$15.1	$12.9	$13.8	$13.7	$13.8	$14.2	$14.6	$98.1
Development Task Orders	$1.8	$0.0	$2.0	$2.0	$2.0	$2.1	$2.1	$12.0
Postage	$2.9	$3.0	$3.1	$3.3	$3.4	$3.6	$3.7	$23.1
Hosting	$4.4	$3.4	$3.2	$2.7	$2.8	$2.9	$2.9	$22.3
FSA Operations	$14.9	$15.5	$13.5	$11.7	$10.3	$10.8	$11.2	$87.8
Total Future Costs	**$39.0**	**$34.9**	**$35.7**	**$33.4**	**$32.3**	**$33.5**	**$34.6**	**$243.3**

Gross savings are then calculated by subtracting the future operations costs from the baseline costs before taking into account any costs necessary to generate those savings.

PCA Contract Changes. Changes to the Private Collection Agency contracts transferred the responsibility for the mailing of certain letters from FSA to the PCA's. While this did not result in any

increase in commission fees paid to the PCA's it resulted in a cost reduction to FSA as postage costs were reduced. This will generate $15.5 million in postage savings between FY02 and FY08.

Operating Partner Contract Negotiations. FSA secured reductions from FY02 in the Operations and Maintenance (Deliverables and Key Personnel) costs associated with running the DMCS. In addition Task Orders were reduced in FY02, and are likely to be significantly lower still in FY03, in anticipation of significant reengineering of the DMCS solution. These initiatives are on track for generating $16.3 million in savings between FY02 and FY08.

Quick Win Process Changes. FSA has already implemented 6 quick win process changes that are driving savings in both postage and FSA Operations costs. These initiatives are likely to generate $597,426 in savings between FY02 and FY08.

Continued Reengineering of Collections. Further opportunities exist for reengineering of the business processes, upgrading of the technology and workforce transformation (see the Solution Description and Workforce Transformation documents for full details). Should FSA move ahead with this initiative as described, further savings in the Operations and Maintenance, Development Task Orders, Hosting costs and FSA Operations will be realized. The savings associated with the business process reengineering and technology upgrade are projected to be $37.6 million between FY03 and FY08. In addition, further savings of $31.7 million could be achieved from FSA operations between FY04 and FY08.

The table below summarizes the gross savings achieved over all these initiatives:

Table 4 – Gross Savings

(in $millions)	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY02-FY08
Postage	$1.9	$2.0	$2.1	$2.2	$2.3	$2.4	$2.5	$15.5
Raytheon Contract	$4.0	$1.9	$1.9	$2.0	$2.1	$2.1	$2.2	$16.3
Quick Wins	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	$0.6
Current Initiatives	**$6.0**	**$4.0**	**$4.1**	**$4.3**	**$4.5**	**$4.6**	**$4.8**	**$32.4**
Continued Reengineering	$0.0	$6.7	$4.6	$6.0	$6.6	$6.8	$7.0	$37.6
O&M	$0.0	$2.6	$2.2	$2.8	$3.2	$3.3	$3.4	$17.3
Development Task Orders	$0.0	$4.1	$2.2	$2.4	$2.5	$2.5	$2.6	$16.3
Hosting	$0.0	$0.0	$0.3	$0.9	$0.9	$0.9	$1.0	$4.0
FSA Operations	$0.0	$0.0	$2.8	$5.3	$7.4	$7.9	$8.3	$31.7
Future Initiatives	**$0.0**	**$6.7**	**$7.4**	**$11.3**	**$14.0**	**$14.6**	**$15.3**	**$69.3**
Total Gross Savings	**$6.0**	**$10.7**	**$11.6**	**$15.6**	**$18.5**	**$19.3**	**$20.1**	**$101.7**

5.3 Estimated Net Savings

To achieve the savings from the continued reengineering of the Collections business unit, a level of investment will be required. The Solution Description document describes in detail the business process, technology upgrades, and workforce transformation activities that would need to take place. It is assumed that this investment could be spread over future fiscal years tied to specific results being delivered. The total investment would be in the range of $33 to $38 million but would be dependent on the details of the contract vehicle used to develop and implement the solution. The costs for the stabilization and transition activities that would be required have been built into the future operations costs.

Table 5 below illustrates one possible scenario as to how the costs could be realized and illustrates the net savings by fiscal year that would then be generated. The $2.26 million costs for FY02 have already been obligated under task order 91. The remaining amount to be funded is $31.7-36.7 million.

Table 5 – Net Savings to FSA

(in $millions)	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY02-FY08
Gross Savings	$6.0	$10.7	$11.6	$15.6	$18.5	$19.3	$20.1	$101.7
Implementation Costs	$2.3	$5.0-7.0	$7.0-8.0	$9.0-10.0	$9.0-10.0	$0.8	$0.0	$33-38
Net Savings to FSA	$3.7	$3.7-5.7	$3.6-4.6	$5.6-6.6	$8.5-9.5	$18.5	$20.1	$63.6-68.7

Table 6 below shows the total outlays for FSA for budgeting purposes. These include Future Operations Costs (shown in Table 3) plus Implementation Costs (shown in Table 5).

Table 6 – Total FSA Outlays

(in $millions)	FY03	FY04	FY05	FY06	FY07	FY08
Future Operations	$34.9	$35.7	$33.4	$32.3	$33.5	$34.6
Implementation Costs	$5.0-7.0	$7.0-8.0	$9.0-10.0	$9.0-10.0	$0.8	$0.0
Total Outlays	$39.9-41.9	$42.7-43.7	$42.4-43.4	$41.3-42.3	$34.2	$34.6

6.0 Additional Benefits

In addition to the financial benefits to FSA described in Section 4, the DMCS Reengineering project will deliver significant financial benefits to the U.S. Treasury as well as additional non-financial benefits to FSA (e.g., fiscal integrity, improved reporting capability, and consistent data management).

6.1 Increased Recoveries

Debt recovery industry experience shows that new technology should improve the recovery rate from 1% to 7% during the first year after implementation (based on Accenture projects with a major credit card company, a major auto credit company, and a federal agency).

Due to the older age of the defaulted student loans, it is reasonable to expect that Collections could realize a recovery rate increase between 1% and 4%. This increase equates to an accelerated cash flow to the U.S. Treasury of between $15 million and $59 million in FY04 alone. Increased recovery to Treasury, driven by new technology, is projected to be $89 million to $357 million from FY04 through FY08. The table below represents gross collections before fees.

Table 7 – Increased Recoveries to U.S. Treasury

Incremental $ Increase (in millions)						
% Increase	FY04	FY05	FY06	FY07	FY08	Total
1%	$ 15	$ 16	$ 18	$ 19	$ 21	$ 89
2%	$ 30	$ 33	$ 35	$ 39	$ 42	$ 178
3%	$ 44	$ 49	$ 53	$ 58	$ 63	$ 268
4%	$ 59	$ 65	$ 71	$ 77	$ 84	$ 357
5%	$ 74	$ 82	$ 89	$ 96	$ 106	$ 446
6%	$ 89	$ 98	$ 106	$ 116	$ 127	$ 535
7%	$ 103	$ 114	$ 124	$ 135	$ 148	$ 624

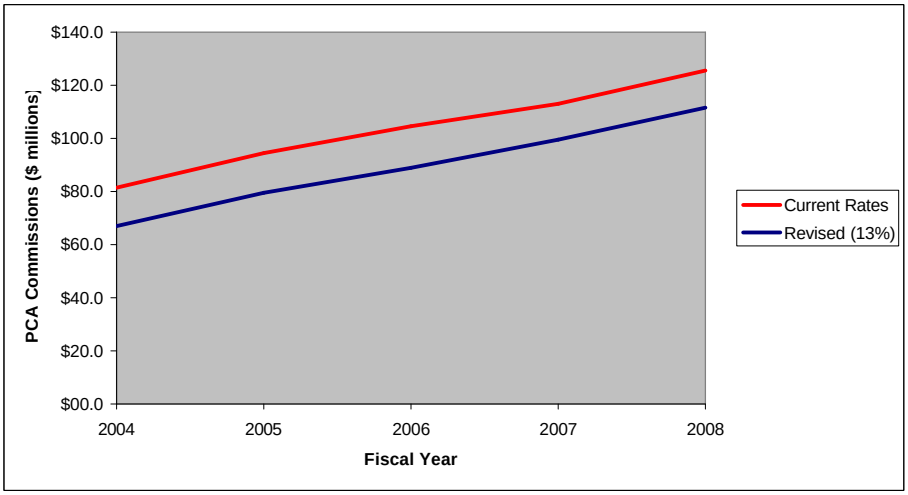
*Percent increase excludes TOP and FDP collections

6.2 Decreased PCA Commission Percentage

The new technology will provide the opportunity for FSA to lower the PCA commission fees paid on collected dollars. Faster access to data, through increased assignment frequency, will allow PCAs to begin collecting sooner, while the debts are newer. In addition, improved data integrity will result in less time being spent reconciling transmissions and dealing with inaccurate information.

These changes could permit FSA to lower the commission rates on Direct Loan collections to 13%, closer to the rates paid to PCAs by Guaranty Agencies. Defaulted Direct Loans are equivalent in age and collectibility to defaulted FFEL loans held by GAs. Savings of $72.4 million from FY04 through FY08 could be realized through this reduction.

The graph below shows the commissions paid by year for FY04 through FY08 using the current rate and an average 13% rate.



6.3 Fiscal Integrity

The reengineering of the DMCS and core business functions helps to address the General Accounting Office (GAO) concern that student loan programs are "high risk due to fraud, waste, error, and mismanagement because Education lacks the financial and management information needed to manage these programs". Not only will the new system provide better and timelier information, but also the inclusion of defaulted loan data in the Students Channel data repository (CMDM) could allow for unlimited ad hoc query capabilities.

Additionally, the relocation of the sub-ledger in DMCS to FMS could help to ensure FSA's compliance with the Federal Financial Systems requirements on JFMIP/A127.

6.4 Reporting and Data Management

The DMCS Reengineering improves financial reporting through better data quality, improved sharing of standardized data across programs and applications, and increased access to more robust, flexible data analysis and reporting tools.

7.0 Risks

The following table identifies the risks associated with the DMCS Reengineering initiatives. The table also outlines the key mitigation strategies to address each of the risk areas.

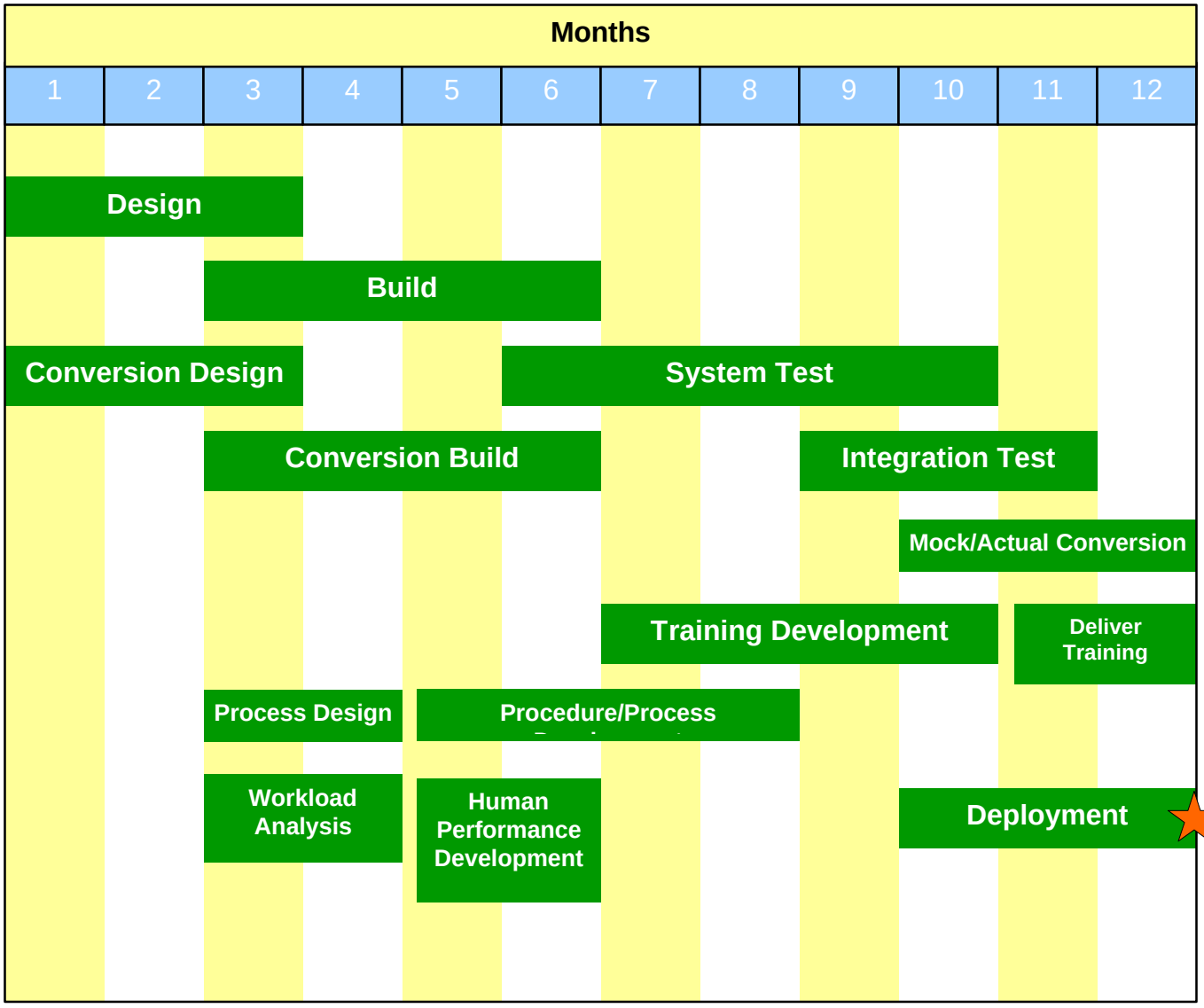
Risk	Description of Risk	Mitigation Strategy
Financial	• Underestimation of the implementation cost	• Ensure contingency and work closely with technology vendor to estimate true cost
	• Delay in receiving approval of deliverables and resolution of issues	• Maintain close coordination between project team and the project sponsors
	• Future operations costs may be higher than projected	• Reduce operational costs through implementation of quick-wins
Technology	• Glitches in transitioning the current system to the new technology	• Project management needs to ensure detailed testing procedures and allocate contingency in the project plan
	• Challenges to clean and convert the existing IDMS data to a relational database.	• A detailed conversion plan needs to be reviewed and closed monitored.
	• A robust hosting facility is required or potential system downtime could occur.	• The VDC is FSA's preferred hosting provider. A review of services, pricing, and performance will be done to validate capabilities.
	• Steep learning curve for some users	• Develop an extensive and effective training program and rollout strategy.
Scope	• Under-estimation of the project scope	• Involve FSA staff early in the project during the requirement and design phase.
	• Difficulties in finalizing and controlling requirements scope	• Re-assess priority of requirements based on business case. Manage scope aggressively to meet target delivery dates
	• Business Process Reengineering activities do not occur prior to design preventing the achievement of operational cost savings.	• Build BPR tasks into the workplan and implement recommendations prior to system design.
Management	• The numbers of on-going projects could overextend FSA resources	• Close interaction with the project sponsor and key decision makers
Exposure	• High risk exposure during implementation and transition phase due to the business and systems interaction with many outside entities	• Strong project management to ensure quality planning, execution and communication to both internal and external entities involved

8.0 Schedule/Milestones

Below is a high level implementation schedule for the proposed solution – business process reengineering, workforce transformation, and new technology. It represents the major activities, durations, and sequencing. Once the initiative is launched, the schedule can be updated with actual dates.

Target implementation date of 11/1/2003 requires a signed contract to be in place by 12/1/2002.

The Workload Analysis and Human Performance Development activities are the first steps in the Workforce Transformation timeline.



Attachment A – Baseline Costs

Attachment B – Future Operations Savings and Costs

Attachment C – PCA Commissions Reduction